

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An enclosure for underground use having a plurality of pultruded prefabricated panels formed of a fiber resinous composite matrix, comprising:

a plurality of interconnecting pultruded vertical panels;

a pultruded floor panel attached to a lower end of the vertical panels; and

a pultruded ceiling panel attached to an upper end of the vertical panels,

wherein said vertical, floor, and ceiling panels include opposing substantially planar sheets attached to a plurality of spaced support members disposed between the sheets and said sheets, and said support members and said planar sheets ~~being comprising~~ pultruded unidirectional glass filaments;

wherein each panel comprise sections that individually do not extend the entire longitudinal length of the panel and wherein ends of the sections abut against each other.

2. (Original) The enclosure of claim 1, wherein the plurality of vertical panels comprises opposing longitudinal wall panels and opposing lateral wall panels.

3. (Currently Amended) The enclosure of claim 2, further comprising a plurality of pultruded fiber resin angle members for bonding the longitudinal wall panels to the lateral wall panels at perpendicular interconnections therebetween and said perpendicular interconnections including a cap element mating with said angle members.

4. (Original) The enclosure of claim 2, wherein the plurality of vertical panels further comprises a bulkhead panel.

5. (Original) The enclosure of claim 2, wherein the longitudinal wall panels and the lateral walls panels include an overlapping joint for attaching to the floor panel and the ceiling panel.

6. (Currently Amended) An enclosure for underground use having a plurality of pultruded prefabricated panels formed of a fiber resinous composite matrix comprising unidirectional glass filaments, comprising:

a plurality of interconnecting pultruded prefabricated vertical panels, said vertical panels including at least one of a plurality of graphite fibers and aramid fibers;

a pultruded prefabricated floor panel for attaching to a lower end of the vertical panels;
and

a pultruded prefabricated ceiling panel for attaching to an upper end of the vertical panels, wherein said vertical, floor, and ceiling panels include opposing substantially planar sheets attached to a plurality of spaced support members disposed between the sheets; wherein the plurality of vertical panels comprises opposing longitudinal wall panels and opposing lateral wall panels; a plurality of connectors for joining adjacent lateral wall panels and adjacent longitudinal wall panels, wherein each panel comprise sections that individually do not extend the entire longitudinal length of the panel and wherein ends of the sections abut against each other wherein the lateral wall panels and the longitudinal wall panels include ends for interconnecting with said connectors.

7. (Original) The enclosure of claim 6, wherein the connectors are bands of fiberglass bonded to the ends of adjacent lateral wall panels and adjacent longitudinal wall panels.

8. (Previously presented) The enclosure of claim 6, wherein the connectors are H shaped so that the connectors are interposed between ends of the adjacent lateral wall panels and adjacent longitudinal wall panels such that a portion of the planar sheets are received and bonded to the connectors.

9. (Currently Amended) An enclosure for underground use having a plurality of pultruded prefabricated panels formed of a fiber resinous composite matrix comprising unidirectional glass filaments, comprising:

a plurality of interconnecting vertical panels, said vertical panels including at least one selected from the group consisting of a plurality of graphite fibers, and aramid fibers, and mixtures thereof, wherein each panel comprise sections that individually do not extend the entire longitudinal length of the panel and wherein ends of the sections abut against each other;

a floor panel attached to a lower end of the vertical panels; and

a ceiling panel attached to an upper end of the vertical panels, wherein said vertical, floor, and ceiling panels include opposing substantially planar sheets attached to a plurality of spaced support members disposed between the sheets; wherein said vertical, floor, and ceiling panels comprise, by weight at least 40% fiberglass.

10. (Previously Presented) The enclosure of claim 1, wherein said vertical panels, said floor panels, and said ceiling panels are unitarily formed.

11. (Previously Presented) The enclosure of claim 1, wherein the opposing sheets of the vertical panels include an outer sheet on an exterior of the enclosure and an inner sheet in an interior of the enclosure.

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29. (Previously Presented) The enclosure of claim 1, wherein the plurality of pultruded panels includes a unidirectional roving therein the fiber resinous composite matrix for increasing a stiffness of said panels.

30. (Previously Presented) The enclosure of claim 1, wherein said vertical wall panels, floor panels and ceiling panels comprise at least 40% fiberglass as measured by weight.

31. (Previously Presented) The enclosure of claim 1, further comprising a plurality of vertically disposed pultruded connectors interposed between adjacent vertical wall panels for bounding together, said connectors having opposed receiving pockets configured receive and seal an interior of said enclosure.

32. (Previously Presented) The enclosure of claim 7, wherein the bands of fibers are configured to seal an interior of said enclosure.

33. (Previously Presented) The enclosure of claim 8, wherein the connectors further comprise a two receiving pockets being opposed longitudinally.

34. (Currently Amended) A vault assembly for a substantially subterranean environment, a plurality of fiber reinforced pultruded panels having a constant cross-section comprising unidirectional glass filaments ~~being formed by pultrusion and~~ said panels being configured for being bonded together, said panels including a plurality of integral spaced support members disposed between two opposing panel surfaces defining a plurality of spaced interstitial pockets interposed therebetween, the vault system comprising:

a plurality of vertical wall panels configured to be interconnected therebetween, wherein each panel comprise sections that individually do not extend the entire longitudinal length of the panel and wherein ends of the sections abut against each other;

a floor panel configured for fixedly bonding to a lower end of the vertical wall panels;
and

a ceiling panel configured for fixedly bonding to an upper end of the vertical wall panels
to define an interior enclosure.

35. (Previously Presented) The vault assembly of claim 34, wherein the support members further comprises a web member interposed between two opposing flange members.

36. (Previously Presented) The vault assembly of claim 35, wherein at least one of the vertical wall panels are formed as an unitary pultruded wall panel.

37. (Previously Presented) The vault assembly of claim 36, wherein the unitary pultruded panel includes a plurality of fibers being unidirectional along said web member and said opposing panels.

38. (Previously Presented) The vault assembly of claim 35, wherein each of the pultruded panels comprise 50% fiber material by weight.

39. (Previously Presented) The vault assembly of claim 38, wherein each of the pultruded panels comprise 40% fiber material by weight.

40. (Previously Presented) The vault assembly of claim 34, further comprising a plurality of pultruded angle components for bonding the vertical wall panels to the floor panels and the ceiling panels, said angle components configured to extend horizontally on said floor panels and said ceiling panels.